REMARKS

Response to Claim Rejections

Claims 1 and 14-18 are rejected under 35 U.S.C 102(b) as being anticipated by Iwasa et al., US Patent 5,327,411 (herein referred to as Iwasa)

Regarding claim 1, applicant asserts that Iwasa does not teach "the memory storing a plurality of sets (emphasis added) of write strategy parameters". Examiner has identified the counter 57 of Iwasa as the memory element, stating "the counter of element 57 is used as a memory, the output of which chooses the path of the pulse, or the write strategy parameters to be used from the various choices". However, applicant points out that the counter 57 may only contain at most one set of write strategy parameters. Iwasa teaches "by decoding the content of the counter 57, only one decoder output corresponding to the space length becomes "H" at the time the mark part has appeared" (Col 17 lines 62-65), "H" referring to high. This teaching is additionally verified through Fig. 16, where the signal group "state of counter" reveal that the counter 57 may only contain one configuration (write strategy parameter) at any given time. Therefore, applicant asserts Iwasa does not teach "the plurality of sets of write strategy parameters stored in the memory" according to the limitation of claim 1.

Additionally, applicant asserts that Iwasa does not teach "choosing a set of write strategy parameters from the plurality of sets of write strategy parameters stored in the memory according to waveform lengths of the previous land section, the current pit section, and the next land section". In the office action of April 17, 2006, The Examiner had provided Col 5 lines 3-8 as a reference, which states "controlling a length and/or amplitude of each of the pulse trains in accordance with a length of the space signal part immediately before the mark signal part". This reference clearly does not teach the full limitation of claim 1 of the present invention, which additionally requires consideration of

the space signal part after the mark signal part (next land section following the current pit section), and was brought to the attention of the Examiner in the subsequent office action. The Examiner additionally stated in the current office action "Column 2, lines 30-37 show the dependence of the write strategy on the length of the written pit and the length of the space between the pits, which would be before and after the pit itself. The cited portion of column 5 explains the implementation based on the statements in column 2".

However, this contrasts Iwasa's teachings, as he states "writing optical disk data wherein pits are written by a write signal composed of mark signal parts and space signal parts" (Col 5 line 39-41). Therefore, applicant asserts that it is the write signal, and not the written pit signal of the optical disc, that determines the write strategy used. The teachings in columns 2 and 5 are therefore not compatible, as they relate to different data signals altogether (one describes a write signal comprising mark and space parts for selecting the write strategy, while the other is the written pit data which is written according to the chosen write strategy). The Examiners reference of (Col 2 lines 33- 37) "the write starting position of the pit varies depending upon the length of the space between pits... there is a variation in the length of the written pit" clearly fails to relate to the write signal of Iwasa used to determine the write strategy, and further fails to teach "choosing a set of write strategy parameters...according to waveform lengths of... the next land section" as disclosed in claim 1.

More precisely, applicant points out that reference (Col 2 lines 30-37) by the Examiner was taken out of context, as a proper inspection of Column 2 in its entirety more concisely teaches the "influence of the remaining heat from the previous pit writing as well as the heat generated during pit writing" creating a "variation in the length of the written pit" including "the length of the space between the pits". Therefore, Col 2 does not even teach the written pits varying according to a write signal or write strategy, but the influence of excess heat during the writing process affecting the pit lengths and spaces.

Because Iwasa does not distinctly teach the limitations of the present invention detailed above, applicant respectfully requests reconsideration for claim 1.

Claims 14 and 16 are dependant upon claim 1 above. Should an allowance be made for claim 1 in view of the above remarks, claims 14 and 16 should be found allowable as being dependant on claim 1.

Also, claim 15 is dependant upon claim 14, while claims 17-18 are dependant upon claim 16. Should allowances be made for the respective intervening claims above, applicant asserts that the dependant claims be found allowable as well.

Claim 2 and 11 are rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa et al. (US Patent 2003/0142606), Ogawa herein after

Regarding claim 2, applicant points out claim 2 is dependant upon independent claim 1 above. Should an allowance be made for claim 1, claim 2 should be found allowable as being dependant on claim 1.

Regarding claim 11, applicant points out claim 11 is dependant upon claim 2 Should an allowance be made for claim 2 above, applicant asserts that claim 11 should be found allowable as being dependant on claim 2.

Claim 3 is rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa, and in further view of Furumiya et al (US 6,791,926), (Furumiya herein)

Regarding claim 3, applicant asserts that Furumiya does not teach "the second parameter representing a delay from a trailing edge of the first pulse of the write time transform to a leading edge of the next pulse from the first pulse". In the office action of April 17, 2006, the Examiner stated the "amount given on the right in the middle of each block in figure 3" of Furumiya, indicated between the arrows, as equivalent to the second parameter as disclosed in claim 3. However, a proper examination of each cell in figure 3 does not reveal a "next pulse from the first pulse" to properly determine the described delay. The "amount given on the right" of each recording pulse suggested by the Examiner indicates a delay from a trailing edge of a last pulse of the recording pulse, to a trailing edge of the recording pattern (hence referring to two different waveforms). This vastly contradicts claim 3, where the second parameter is a delay from the trailing edge of the first pulse of the write time waveform, to the leading edge of the next pulse to the first pulse in the same waveform. Applicant asserts that the reference of Furumiya is therefore not sufficient to teach this limitation, as it does not at all specifically point out a delay from the trailing edge of the first pulse to a leading edge of a next pulse to the first pulse.

The applicant also points out that the Examiner still fails to address this issue in the recent office action, stating "the delay given between the pulses in the waveform is the same as the delay described by the applicant". However, applicant points out that this assumption by the Examiner cannot be advanced, as it still fails to show Furumiya specifically teaching this delay. Although the unidentified delay in Fig. 3 of Furumiya may possibly show a similar delay to the second parameter of the present invention, it is nonetheless outside the scope of Furumiyas' teaching unless specific support can be provided by the Examiner instead of unwarranted assumptions. A simple graphical waveform containing multiple pulses cannot teach a specific delay between certain pulses, unless that delay is specifically identified through a time-based marking or equivalent indicator, neither of which are present in the teachings of Furumiya.

For at least the above mentioned reasons, applicant respectfully requests reconsideration for the allowance of claim 3.

Claims 4-5 are rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa, and Furumiya, as applied to claim 3 above, and in further view of Shoji et al (US 6,233,211) (Shoji herein after)

Regarding claim 4, applicant points out claim 4 is dependant upon claim 3 above. Should an allowance be made for claim 3, claim 4 should be found allowable as being dependant on claim 3.

Regarding claim 5, applicant points out that Shoji does not teach "a length of the first pulse of the write time waveform is equal to a length of twice the base period subtracting the chosen first parameter" as disclosed in the limitation for claim 5. The provided reference of Fig 20 of Shoji, shows the first pulse of the write waveform as 1.5T, and the first parameter as "TF" as it is defined as "representing a delay from a leading edge of the current pit section to a leading edge of a first pulse of a write time waveform" in claim 3 of the present invention. However, an accurate inspection of Fig. 20 of Shoji

will indeed reveal that the length of the first pulse is not equal to twice the base period minus "TF". The base period in Fig. 20 is indicated by one horizontal unit "T" shown at the top. Because both the first parameter (TF) and the first pulse (1.5T) are both contained within two base periods 2T, the summation of "TF" and 1.5T is less than 2T. This is evidenced by the additional (unidentified) space starting from the right of the first pulse (1.5T), to the dashed line indicating the boundary of a 2T period, the 2T period comprising all the "TF", 1.5T and additional space. Clearly, Fig. 20 therefore shows that TF + 1.5T + "additional space" = 2T, and because the additional space is finite and non-zero, it disproves 1.5T = 2T – TF. Therefore, Shoji does not teach "a length of the first pulse of the write time waveform is equal to a length of twice the base period subtracting the chosen first parameter" as disclosed in the limitation for claim 5.

Applicant also points out that the Examiner has misinterpreted the applicant's response in the previous office action. Examiner has stated that "applicant points out, TF + 1.5T = 2T. Thus TF is equal to 0.5T". However, applicant did not state this, but stated the converse: TF + 1.5T $\neq$ 2T. Applicant points out that the Examiner does not appear to account for the "unidentified space" right of the 1.5T pulse, but also fitting within a 2T period that would include TF and the 1.5T pulse. Applicant kindly requests that the Examiner carefully re-inspect Fig. 20 of Shoji for the allowance of claim 5.

Claims 6-8 and 12 are rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa as applied to claim 2 above, and in further view of Shoji

Regarding claim 6, applicant asserts that Shoji does not teach "a length between leading edges of any two consecutive pulses among all but the first and the last pulses being equal to twice the length of the base period" as disclosed in the limitation for claim 6. The Examiner originally provided Fig. 3 of Shoji as a reference in the April 17 2006 office action, which illustrates various pulse signals of different lengths (3T-11T). However, only the 6T pulse signal provides any exact measure of delay between pulses,

and that only for the delays adjacent to the first pulse and last pulse of the waveform. In any case, this does not provide any meaningful information, as the limitation of claim 6 requires "a length between leading edges of any two consecutive pulses among all but the first and the last pulses", thereby excluding the indicated delays of in the 6T waveform of Shoji from consideration.

The Examiner also stated in the last office action that "the length of the multiple pulses is 0.5T, making this the base period. Thus, the given consecutive pulses of 0.5T +0.5T is the same as twice the base period of 0.5T". However the Examiner assumption of a 0.5T base period is incorrect. Shoji conversely teaches in the same section "where T is the reference period" (Col 11 line 4). Therefore, the consecutive pulses as assumed by the Examiner of 0.5T + 0.5T would not equal twice the proper base period of (T+T=2T) as taught by Shoji.

Given the above rationale, applicant asserts that it is not obvious to combine this teaching with the previously stated references to arrive at the limitation of claim 6. Reconsideration of claim 6 is respectfully requested.

Claims 7-8 are dependant upon claim 6. Should an allowance be made for claim 6 in view of the above remarks, applicant asserts that claims 7-8 should be found allowable as being dependant on claim 6.

Claim 12 is dependant upon claim 2. Should an allowance be made for claim 2 in view of the above remarks, applicant asserts that claim 12 should be found allowable as being dependant on claim 2.

Claim 9 is rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa as applied to claim 2 above, and in further view of Shoji and Nakajo (US 6,781,937)

Applicant points out that claim 9 is dependant upon claim 2. Should an allowance be made for claim 2, applicant asserts that claim 9 should be found allowable as being dependant on claim 2.

Claim 10 is rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa, Shoji, Nakajo as applied to claim 9 above, and in further view of Nobukuni (US 6,411,579)

Regarding claim 10, applicant points out that claim 10 is dependant upon claim 9. Should an allowance be made for claim 9, applicant asserts that claim 10 should be found allowable as being dependant on claim 9.

Claim 13 is rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in view of Ogawa, Furumiy as applied to claim 3 above, and in further view of Fuji (US 5,537,381)

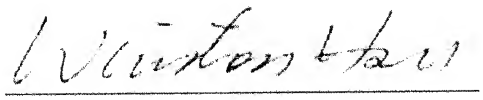
Regarding claim 13, applicant points out that claim 13 is dependant upon claim 2. Should an allowance be made for claim 2, applicant asserts that claim 13 should be found allowable as being dependant on claim 2.

Claim 19 is rejected under 35 U.S.C 103(a) as being unpatentable over Iwasa in as applied to claim 1 above, and in further view of Hayashi (US 5,606,540)

Regarding claim 19, applicant points out that claim 19 is dependant upon claim 1. Should an allowance be made for claim 1, applicant asserts that claim 19 should be found allowable as being dependant on claim 1.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Sincerely yours,



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